Subject: Science
Year 8 Overview

ST. MARY MAGDALENE
C OF E SCHOOL
PENINSULA CAMPUS
Excellence through innovation, founded in faith since 1840.

Key content – knowledge and skills	**National Curriculum focus**
Plant reproduction	Biology - reproduction
Chemical reactions	Chemistry – chemical reactions
Electricity and electromagnetism	Physics – electricity and electromagnetism
Space	Physics – space physics
Gas exchange	Biology – gas exchange systems
Respiration	Biology – cellular respiration
Earth and atmosphere	Chemistry – earth and atmosphere
Interactions, interdependencies, genetics and evolution	Biology – interactions and interdependences, genetics and evolution
Waves	Physics - waves
Energetics	Chemistry - energetics
Materials and properties	Chemistry - materials
Drugs	Biology - health

Key assessment points

- Describe structure of plant & explain how they reproduce
- Analyse chemical reactions incl. acids and alkalis & write equations
- Understand key factors in electricity and magnetism, electromagnets
- Explain day & night, seasons, phases of the moon, planets
- Explain how gases are exchanged in humans and in plants
- Explain purpose of aerobic and anaerobic respiration
- Describe continental drift, fossils, the rock cycle, the atmosphere
- Understand food chains and webs, genetics and evolution
- Describe properties of waves, light waves, sound waves
- Understand endothermic and exothermic reactions & profiles
- Understand reactivity series, metal extraction using carbon, properties of ceramics, composites and polymers
- Explain why some drugs are illegal, effects on the body

Christian ethos

Tolerance, acceptance, kindness and forgiveness expected in all lessons. No prejudice acceptable

British values

Mutual respect taught in how we treat each other in class, respecting lab equipment and being careful. Individual liberty – choices given relating to learning. Democracy – freedom of information to use science to understand the world around us. Rule of law – illegal drugs. Tolerance of other faiths and beliefs – learning about evolution, Pangea – some religions don't believe this.